

METHOD OF MANUFACTURING TRENCH-TYPE MOSFET

ABSTRACT OF THE DISCLOSURE

In a method of manufacturing MOSFET devices, and particularly to the trench-type MOSFET devices, embodiments of the present invention provide methods of forming bottom oxide layers having uniform thickness on the bottom of the trenches and avoiding undesired damage in the partial semiconductor substrate near the top of the trenches. In one embodiment, a method for manufacturing a trench-type MOSFET comprises providing a semiconductor substrate and forming a trench on the semiconductor substrate; forming a first oxide layer on a bottom and sidewalls of the trench and on the semiconductor substrate; forming a bottom anti-reflective coating (BARC) layer in the trench to cover the first oxide layer; forming a photoresist layer on the bottom anti-reflective coating layer; removing the photoresist layer; removing the bottom anti-reflective coating layer; and removing the first oxide layer on the sidewalls of the trench to form a bottom oxide layer on the bottom of the trench.

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